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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,863	01/21/2005	Elmo Diederiks	NL 020680	1265
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EXAMINER				
BLOOM, NATHAN J				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,863

Applicant(s)

DIEDERIKS ET AL.

Examiner

NATHAN BLOOM

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/11/2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to the newly amended subject matter of the currently presented claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-8, 10, and 12-15 rejected under 35 U.S.C. 103(a) as being unpatentable over McClure (US 7006129 B1) in view of Schofield (US 2002/0003571), Trifonov (US 2003/0053690), and in further view of Li (DE 29612536 U1).

Instant claim 10: A viewing system, comprising:

display means [McClure: *object 130 in Fig. 4, object 230 in Fig. 5. Li: Figures 5 and 6.*]; and

an imaging system connected to the display means [McClure: *object 132 camera Fig. 4, 250 Fig. 5, 150 Fig. 2-3 and 6. Li: Figures 1-2 (cameras are part of the imaging system).*],

wherein the display means is arranged to display an image based on signals received from the imaging system, the spatial orientation of the display means being adjustable, and wherein the imaging system further comprises [McClure: *Display shows image based on signals received from imaging system, see Fig. 3-4 and lines 41-62 of column 2. Furthermore, Li has shown in figures 5-6 the display of images captured from the imaging devices.*]

(a) orientation adjusting means arranged to adjust the viewing orientation of the imaging system [McClure: *objects 130, 158, 156, 152, 154 of Fig. 4,*

(b) sensor means for detecting adjustments in the orientation of the display means and [McClure: *objects 134 and 136 of Fig. 4]*

(c) image processing means arranged to process the image [McClure: *object 132 of Fig. 4, the driver (of the processing system) is the device the processes image for display*], the sensor means being connected to the

orientation adjustment means and the orientation adjusting means being arranged to adjust the viewing orientation of the imaging system based on signals received from the sensor means [McClure: *Fig. 4 and lines 41-62 of column 2, lines 42+ of column 4 and lines 1-7 of column 6*],

the image processing means being arranged to process additional information concerning the status of the vehicle or its surroundings for display on the display means, [McClure: *McClure has taught an image processing means but does not disclose the processing of additional information. Schofield has disclosed a rear-view imaging system similar to that taught by McClure without the sensor and orientation means. Schofield has taught in paragraphs 0009-0010 a system that displays additional overlaying information. The processing device has not been thoroughly described, but one of ordinary skill in the art at the time of the invention inherently understands that in order to obtain and display this information it would have been necessary to process and manipulate the data for display. Motivation: Schofield has taught in paragraphs 0004, 0265, 0328 the need for an adjustable camera so that the driver can have the desired view. It would have been obvious to one of ordinary skill in the art to combine the teachings of Schofield and McClure to provide the user with an interior rearview mirror viewing system that maximizes desired rearward view by supplying the driver with a means to adjust the field of view.*]

the viewing system further comprising an image processing means arranged to eliminate high lights that cause blinding in a registered image, [McClure *teaches in lines 38-44 of column 7 that correction of highlights (bright, saturated, or overexposed region) in an image was known in the art at the time of the invention, but does not go into*

specifics as to whether this correction was done with lens adjustment or digital enhancement means. However, as is evidence by the teachings of Trifonov the (histogram equalization) correction of shadow or highlight regions of a captured digital image by digital means was well known in the art at the time of the invention after the image has been "registered" (registered is being interpreted as the image having been obtained/captured by the system). See paragraphs 0005-0008 and 0034 of Trifonov for further discussion of the manner of the correction. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device and method of "blinding light" (headlights) adjustment of McClure to control image brightness with a known digital techniques as taught by Trifonov to reduce image noise and improve image usability by reduction of brightness in image regions that are overly bright. Furthermore, one of ordinary skill in the art at the time of the invention would have had a reasonable expectation for success in combining the teachings of Trifonov (image processing method) with McClure (unknown camera adjusting method to reduce brightness caused by headlights shining into the camera "blinding lights") to digitally enhance the images captured by the device of McClure. Additionally, see the above response to Applicants' remarks.]

the imaging system comprising a plurality of cameras, and the display means being further arranged to display multiple images from the plurality of cameras at the same time by dividing the display means in different parts. [Schofield has taught in paragraph 0284 the capturing of rear-view (side mirrors - see figure 21) that capture images of the car from the passenger and drivers side (plurality of cameras with different views). Furthermore, the teachings of Li in figure 6 provide the motivation for capturing

and displaying both rear and side-view images with a plurality of cameras and displaying all in a single rear-view display system (display is divided into separate parts, rear-view displayed on top and the two side-views are displayed side-by-side on the bottom portion of the display). It would have been obvious to one of ordinary skill in the art to combine the teachings of additional cameras as taught by Schofield with those of McClure, Schofield, and Trifonov as evidenced by the teachings of Li in figure 6 to enhance the vision of the driver by reducing the vehicle's blind spots (see discussion of Schofield in paragraph 0284 that teaches reduction of blind spots), and increasing the amount of information available to the user.]

Instant claim 12: Viewing system according to claim 10, wherein the image processing means are arranged to display one or more images at the same time or one after the other on the display means [*McClure: Disclosed the display of a single image in lines 41-62 of column 2. Schofield also disclosed the display of at least a single image as is shown in Fig 39A. Furthermore, it is known to one of ordinary skill in the art to display multiple images in parallel as has been evidenced (figures 5-6) by the teachings of Li (DE 29612536 U1).*].

Instant claim 13: Viewing system according to claim 10, wherein the viewing system further comprises selection means connected to the image processing means to select which image and/or which additional information is displayed by the display means [*Schofield: paragraph 0009-0010 displays additional overlaying information. Selection of information taught in paragraphs 0063 and 0305-0306*].

Instant claim 14: Viewing system according to claim 10, wherein the display means are positioned as a rear-view mirror in a vehicle [*McClure: Lines 41-62 of column 2.*

Schofield: Fig. 1-9 and various other figures include different embodiments].

Instant claim 15: Viewing system according to claim 10, wherein the display means are adjustable in a tilt and a pan direction [*McClure: lines 41-62 of column 2, Fig 2-4, and lines 42+ of column 5 where X and Y direction refer to rotation about the horizontal and vertical axis.*].

Instant claim 1: (Currently amended) Viewing system comprising display means and an imaging system connected to the display means [*See analysis of instant claim 10*],

the display means being arranged to display an image based on signals received from the imaging system [*See analysis of instant claim 10*],

the spatial orientation of the display means being adjustable [*see analysis of instant claim 10*],

the imaging system comprising a plurality of cameras, each of the cameras providing a different view and [*See analysis of instant claim 10 for single camera, but McClure does not disclose multiple cameras. However, Schofield has taught in paragraph 0284 the capturing of rear-view (side mirrors - see figure 21) that capture images of the car from the passenger and drivers side (plurality of cameras with different views). Furthermore, the teachings of Li in figure 6 provide the motivation for capturing and displaying both rear and side-view images with a camera and displaying all in a*

single rear-view display system. It would have been obvious to one of ordinary skill in the art to combine the teachings of additional cameras as taught by Schofield with those of McClure, Schofield, and Trifonov as evidenced by the teachings of Li in figure 6 to enhance the vision of the driver by reducing the vehicle's blind spots (see discussion of Schofield in paragraph 0284 that teaches reduction of blind spots), and increasing the amount of information available to the user.]

the imaging system further comprising orientation adjusting means arranged to adjust the viewing orientation of the imaging system, characterized in that the viewing system further comprises sensor means for detecting adjustments in the orientation of the display means, the sensor means being connected to the orientation adjustment means and the orientation adjusting means being arranged to adjust the viewing orientation of the imaging system based on signals received from the sensor means, [See analysis of instant claim 10 for single camera, but McClure does not teach multiple cameras (see Ross).]

the viewing system further comprising an image processing means arranged to eliminate high lights that cause blinding in a registered image, [See analysis of claim 10.]

the display means being further arranged to display multiple images from the plurality of cameras at the same time by dividing the display means in different parts. [See figure 6 of Li (see the above discussion).]

The limitations of instant claims 3-8 have been shown to been taught by McClure in view of Schofield as per rejection of instant claims 10 and 12-15.

5. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over McClure in view of Schofield, Li, and Trifonov as applied to claims 1, 3-8, 10, and 12-15 above, and further in view of Okamoto et al. (KR2002-0033816 which is the Korean publication of the patent family shared by US 7266219).

Instant claim 11: Viewing system according to claim 10, wherein the imaging system comprises one or more cameras positioned in a vehicle include cameras for providing images of tires of the vehicle. *[McClure in view of Schofield, Trifonov, and Li have taught the capture of a plurality of images from various locations on the vehicle and the display of these images to aid the user in monitoring the surroundings of the vehicle, but have not taught the monitoring of the tires with cameras. However, Okamoto has taught in the section entitled "The problem of the method of hitherto 1 and the subject to solve." (begins on page 3) a vehicle monitoring system that monitors blind-spots surrounding the vehicle including cameras that capture images of the tires (images "including ground of tire" – description of figure 8 on page 8 of Okamoto). Therefore, McClure, Schofield, Li, and Okamoto have all taught the monitoring of vehicles regions to increase driver awareness. It would have been obvious to one of ordinary skill in the art to combine the teachings of Okamoto (tire region monitoring) with the vehicle monitoring system of McClure in view of Schofield, Trifonov, and Li to increase driver awareness of the vehicle surrounding by including additional views of the vehicles surroundings (tire regions).]*

The limitations of instant claim 2 have been shown to have been taught by McClure in view of Schofield, Li, Trifonov, and Okamoto as per rejection of instant claim 11.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Moore, US 6690413 - vehicle monitoring system with camera that images wheel regions.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Bloom whose telephone number is 571-272-9321. The examiner can normally be reached on Monday through Friday from 9:30 am to 6:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached on 571-273-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624